

HABITS OF HORNBILL

Lady hornbills are trusting wives, and gentlemen hornbills are the most unbelievably faithful husbands.

Hornbills are birds, the size of small turkeys with enormous beaks, usually found in pairs in the forests of East Africa. A comprehensive report on the behavior of these grotesque birds in the Mpanga Research Forest, near Entebbe, Uganda, by Dr. Lawrence Kilham, of Bethesda, Md., has recently been published by the Smithsonian Institution. The account is a classic of bird-watching.

Hornbills are perhaps best known from the curious instinctive behavior of the female. Before laying her annual quota of two eggs she walls herself with mud, collected by the male, into a hole near the top of some high jungle tree. There one of the eggs—apparently seldom both—is hatched and the chick reared. The female continues this voluntary imprisonment for two months or more. There is always a small aperture in the wall. Through this the foraging male passes food to his imprisoned mate, once an hour or less. Food consists mostly of fruits. Sometimes he brings her what apparently are playthings to relieve the monotony of hatching and chick-rearing.

Hornbills mate for life and apparently their conjugal life is a model of high morality for the whole animal kingdom. Walled into the tree-holes, the females obviously are helpless to protect themselves against any infidelity, and, sad to say, there are vampire female hornbills in the jungle whose only thought is to steal some imprisoned lady's spouse. In the case observed by Dr. Kilham, however, the male preserved his virtue to the end.

By November 8 [he records], the female was walled in, and a more serious attempt at interference was now made by a foreign female. . . . She was following the male and lighted in the next tree when he lighted above his nest hole. On November 23 the same course of events took place, except that the male was less tolerant. He fed his own mate, then drove the intruder away. A week later I saw her fly in close behind the male and light 25 feet from the nest hole. The male gave his mate a piece of bark followed by some fruit, and

then bounced from one branch to another toward the foreign female.

The poor fellow was falling, falling, but the female within the nest screamed a number of times. I wondered whether the interloper could seduce the male, but from subsequent observations it seemed unlikely that she would. The male returned again to the nest hole, and a few minutes later was in the upper part of the tree knocking about on dead branches until he dislodged a piece of bark. He clamped his bill on the bark until it was largely fragmented. Then he moved toward the foreign female. If he presented the bark [a cherished play object among hornbills] one would suppose that she had some attraction for him. After a moment, however, he changed his direction, flew down to the big limb below, bent over the nest hole, and gave the token to his mate, accompanied by a feeding chuckle. Subsequently he returned to perch quietly within eight feet of the intruding female. At 7.30 a.m. the two of them flew away together. As the nesting season progressed, he became less tolerant of her intrusions. . . . On February 3 I again watched her fly in behind the male and alight on the nest tree, making considerable noise. The male stopped feeding his mate, swooped at the interloper and drove her down toward the ground. However, when he flew away, she followed a short distance behind.

The vampire was hard to discourage. A few days later she was observed at the entrance to the nest, trying to break the wall with her beak. Probably there was a sex murder case in the making. But "after five minutes the male arrived and . . . drove the foreign female to another tree, flying at her so hard that he knocked leaves from intervening branches. He returned to his nest with a small stick held like a cigar. His mate, who had remained silent, now began her wailing sereeches. . . . The intruding female, persistent as usual . . . had followed the male back to the nest tree. In a few minutes he flew at her again, flying faster than hornbills usually do as he chased her from one tree to another." But his ordeal of bachelorhood was nearly over. Five days later mother and young emerged from the nest. "The pair of hornbills were perched side by side on their nest tree. Not long after I heard a great flutter of wings. I looked back to see both members of the pair pursuing a foreign female. . . . When the parents later came to our garden, she did not follow."